

# Omer Lev – Curriculum Vitæ

[omerl@cs.toronto.edu](mailto:omerl@cs.toronto.edu)  
<http://www.cs.toronto.edu/~omerl/>

Post-doctoral fellow at the department of computer science in the University of Toronto, Canada; hosted by Prof. Allan Borodin.

**Research Interests** Crowd activities (crowdsourcing, crowdfunding), social networks, mechanism design, and computational social choice. Analysis using algorithmic game theory, simulations, and real-world data.

**Education** **PhD. in Computer Science**, Hebrew University of Jerusalem – 2010-2015  
Advised by Prof. Jeffrey S. Rosenschein, and part of the MultiAgent Systems (MAS) group.  
Thesis: *Agent Modeling of Human Interaction: Stability, Dynamics and Cooperation*.

**MSc. in Mathematics**, Hebrew University of Jerusalem – 2007-2010  
Advised by Prof. Sergiu Hart, on multi-item auction.  
Thesis: *A Two-Dimensional Problem of Revenue Maximization*.

**MBA**, Hebrew University of Jerusalem (as part of the CS-MBA program) – 2007-2008  
Majored in finance and business strategy.

**BSc. in Computer Science and Mathematics** (and graduate of the "Amirim" excellence program for Faculty of Science students), Hebrew University of Jerusalem – 2004-2007  
Graduated cum laude, and wrote an "Amirim" research project under Prof. Orna Kupferman's supervision [see below].

**Teaching** Taught the course "Mathematical Foundations of Artificial Intelligence" during spring 2014 and 2015.  
Teaching assistant for "Operating Systems" course during spring 2011, 2012 and 2013.  
Junior teaching assistant for "Mathematical Logic (1)" and "Infinitesimal Calculus (2)" during 2008 and 2009.

**Honors** Awarded Microsoft Research PhD. scholarship.  
MSc. Excellence award during the 2007/8 academic year.  
Dean's list for the 2004/5 and 2005/6 academic years.

**Professional Experience** **Microsoft Research** – 2013-2015  
Working at Microsoft Research on various research directions, particularly in game theory and recommendation systems.  
**NDS** [now part of Cisco] – 2006-2013  
Worked as a part-time programmer at NDS Technologies, specifically in smart-card development. Programming mainly in C/C++, C# and ASP.NET (and a bit in Python).

## Publications

**Convergence and Quality of Iterative Voting Under Non-Scoring Rules** — IJCAI 2017  
Aaron Koolyk, Tyrone Strangway, Omer Lev and Jeffrey S. Rosenschein.

**Group Recommendations: Axioms, Impossibilities, and Random Walks** — TARK 2017  
Omer Lev and Moshe Tennenholtz.

**Distant Truth: Bias Under Vote Distortion Cost** — AAMAS 2017  
Svetlana Obratzsova, Omer Lev, Evangelos Markakis, Zinovi Rabinovich and Jeffrey S. Rosenschein.

**Divide and Conquer: Using Geographic Manipulation to Win District-Based Elections**  
— AAMAS 2017  
Yoad Lewenberg, Omer Lev and Jeffrey S. Rosenschein.

**Agent Failures in All-Pay Auctions** — IEEE Intelligent Systems, January-February 2017  
Yoad Lewenberg, Omer Lev, Yoram Bachrach and Jeffrey S. Rosenschein.

**Convergence of Iterative Scoring Rules** — Journal of AI Research (JAIR), December 2016  
Omer Lev and Jeffrey S. Rosenschein.

**Misrepresentation in District Voting** — IJCAI 2016  
Yoram Bachrach, Omer Lev, Yoad Lewenberg and Yair Zick.

**Budgetary Effects on Pricing Equilibrium in Online Markets** — AAMAS 2016  
Allan Borodin, Omer Lev and Tyrone Strangway.

**Strategyproof Peer Selection: Mechanisms, Analyses, and Experiments** — AAAI 2016  
Haris Aziz, Omer Lev, Nicholas Mattei, Jeffrey S. Rosenschein and Toby Walsh.

**How Robust is the Wisdom of the Crowds?** — IJCAI 2015  
Noga Alon, Michal Feldman, Omer Lev and Moshe Tennenholtz.

**Impartial Peer Review** — IJCAI 2015  
David Kurokawa, Omer Lev, Jamie Morgenstern and Ariel D. Procaccia.

**An Axiomatic Approach to Routing** — TARK 2015  
Omer Lev, Moshe Tennenholtz and Aviv Zohar.

**Beyond Plurality: Truth-Bias in Binary Scoring Rules** — ADT 2015  
Svetlana Obratzsova, Omer Lev, Evangelos Markakis, Zinovi Rabinovich and Jeffrey S. Rosenschein.

**The Pricing War Continues: On Competitive Multi-Item Pricing** — AAAI 2015  
Omer Lev, Joel Oren, Craig Boutilier and Jeffrey S. Rosenschein.

**Analysis of Equilibria in Iterative Voting Schemes** — AAAI 2015

Zinovi Rabinovich, Svetlana Obraztsova, Omer Lev, Evangelos Markakis and Jeffrey S. Rosenschein.

**A Local-Dominance Theory of Voting Equilibria** — EC 2014

Reshef Meir, Omer Lev and Jeffrey S. Rosenschein.

**Cooperative Weakest Link Games** — AAMAS 2014

Yoram Bachrach, Omer Lev, Shachar Lovett, Jeffrey S. Rosenschein and Morteza Zadimoghaddam.

**Agent Failures in All-Pay Auctions** — IJCAI 2013

Yoad Lewenberg, Omer Lev, Yoram Bachrach and Jeffrey S. Rosenschein.

**Mergers and Collusion in All-Pay Auctions and Crowdsourcing Contests** — AAMAS 2013

Omer Lev, Maria Polukarov, Yoram Bachrach and Jeffrey S. Rosenschein.

**Empirical Analysis of Plurality Election Equilibria** — AAMAS 2013

David R.M. Thompson, Omer Lev, Kevin Leyton-Brown and Jeffrey S. Rosenschein.

**Convergence of Iterative Voting** — AAMAS 2012

Omer Lev and Jeffrey S. Rosenschein.

**An Algorithm for the Coalitional Manipulation Problem under Maximin** — AAMAS 2011

Michael Zuckerman, Omer Lev and Jeffrey S. Rosenschein.

**A Two-Dimensional Problem of Revenue Maximization** — Journal of Mathematical Economics, December 2011 [*MSc. thesis*]

Omer Lev.

**On the Relative Succinctness of Nondeterministic Büchi and co-Büchi Word Automata** — LPAR 2008 [*“Amirim” project*]

Benjamin Aminof, Orna Kupferman and Omer Lev.

Service

**Co-organizer** of the EXPLORE 2017 workshop.

**PC member** for IJCAI (2015, 2016, 2017), AAAI (2017), AAMAS (2017), ECAI (2016).  
[workshops: EXPLORE (2015, 2016), COOPMAS (2016)].

**Reviewer** for IJCAI (2013), AAAI (2011, 2014, 2015, 2016), EC (2014, 2015, 2017), STOC (2017), AAMAS (2012, 2013, 2015, 2016), WINE (2013, 2014, 2015, 2016), WSDM (2016), ICWSM (2014), SAGT (2014).  
[workshop: COMSOC (2012, 2014, 2016)].

**Journal reviewer** for AIJ, JAIR, JAAMAS, TOCS, JCSS, MOR and EJOR.